REMARKS

By this amendment: (1) claims 1, 17, 22 and 27 have been amended; (2) claims 23-25 and 28-31 have been amended to be in independent form as required by the Examiner for allowance; (3) a version with markings to show changes made to the claims is provided; and (4) a clean copy of all pending claims showing them as they will be after amendment is also provided.

This application now contains claims 1-15 and 17-31. In view of the above amendments and the remarks hereinafter, it is respectfully requested that this application be reconsidered.

The rejection of claims 11 and 12 under 35 U.S.C. 102(b) as being anticipated by Boon is respectfully traversed. Boon does not disclose the following recitation in claims 11 and 12:

> "11. * * *
>
> a casing at least partly encasing the control housing....."
>
> * * *

Claim 12 depends from claim 11 and defines novelty for the same reason. Boon's control housing is outside the casing as shown in FIG. 3.

The rejection under 35 U.S.C. 103 of claims 1, 3, 6, 14, 15, 26 and 27 over Boon is respectfully traversed. Boon arms even with momentary pressure put on the pressure pad and activates the alarm on a momentary release of pressure. It is subject to errors for

that reason. Boon does not disclose disposing of the pad after the one patient is done with it nor compensating for the circumstance of when a patient starts to leave but then stops or when the patient momentarily shifts position and the pressure is momentarily released. There is no teaching of this problem in the cited reference and both the problem and solution are unobvious in the absence of a teaching. The United States Patent and Trademark Office has the burden of establishing a prima facie case and it has not satisfied that burden. Claims 3 and 6 depend from claim 1 and define patentably over Boon for the same reasons as claim 1.

Claim 14 defines over Boon by reciting a casing at least partly encasing the control housing and the pressure pad and a delay time of more than 1 second being necessary between the arming of the alarm and the release of pressure to activate the alarm. Neither of these is taught nor suggested by Boon and they render claim 14 patentable over Boon. Claim 15 depends from claim 14 and is patentable for the same reasons. Claims 26 and 27 are limited by recitation of a casing at least partly encasing the control housing and the pressure pad and by a recitation of a second sensor, neither of which is taught nor suggested by Boon and they are unobvious. These recitations render claims 26 and 27 to be patentable over Boon.

The rejection of claims 17-20 under 35 U.S.C. 102(3) over Boon in view of Smith is respectfully traversed. There appears to be a typographical error involved since a rejection cannot be made under 35 U.S.C. 102 over a combination of references and 35 U.S.C. 103(3) is a definition of "biotechnological process". However, perhaps this was intended to be a rejection under 35 U.S.C. 103(a). If so, the rejection under 35 U.S.C. 103(a) is

also respectfully traversed.

Neither Boon nor Smith disclose compensating for the circumstance of when a patient starts to leave but stops quickly so as to only momentarily put pressure on the pad or when the patient momentarily shifts position and the pressure is momentarily released. There is no teaching of this problem in the cited reference and both the problem and solution are unobvious in the absence of a teaching. The United States Patent and Trademark Office has the burden of establishing a prima facie case and it has not satisfied that burden. Moreover, there is no suggestion or teaching that would cause a person of ordinary skill in the art to combine teachings from Smith with teachings from Boon.

The rejection of claims 2, 4-5, 7-10, 13, 21, and 22 under 35 U.S.C. 103(a) over Boon in view of Cross is respectfully traversed. Claims 2, 4, 5, 21 and 22 depend from claim 1 and define novelty by recitations directed to the time delay required before the removal of pressure energizes an alarm as discussed in connection with claim 1. This feature is not disclosed nor suggested by either Boon or Cross. Thus, the claims are patentable for the same reason as claim 1 discussed above. Moreover, claims 2, 21 and 22 as well as claims 7-10 recite a combination of sensors which has the advantage of providing not only duplication but functions that cannot be provided by a single sensor. For example, while a pressure pad may indicate someone leaving a wheelchair or a bed it would not by itself indicate that the patient is slumping halfway in or halfway out of the chair nor indicate the direction of motion. Neither Boon nor Cross provide any suggestion of these unobvious advantages and claim 2 is therefore patentable for this additional reason. Neither Boon nor Cross disclose the combination of sensors to provide redundant signals

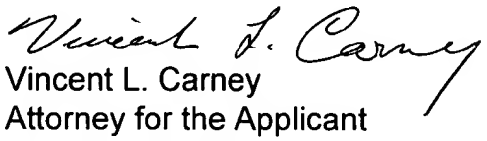
that would reduce false alarms and avoid a patient inactivating one sensor such as by removing the cord type switch. Since neither reference discloses this combination or suggests the problem it solves or the solution to the problem covered by these claims, the claims are patentable. Moreover, there is no reason why a person of ordinary skill in the art would combine teachings from these two references, particularly to arrive at a device not disclosed in either of them.

Claims 7-10 are also directed to the use of two switches and are patentable for the same reasons as claim 2. These methods provide an unobvious advantage over either Cross or Boon in that they can detect multiple dangerous conditions and also provide redundancy for the same dangerous conditions. There is no suggestion in Cross nor Boon of this synergistic relationship. Claim 13 recites that the casing for the pressure pad also encloses the control housing. Neither Cross nor Boon discloses a self-contained pad that need not be connected to an external control unit. It has the advantage of not exposing the control unit to the environment that may include corrosive materials not having external entanglements. There is no suggestion of the benefits of this type of arrangement in the cited patents and it would have been unobvious to a person of ordinary skill in the art at the time of the invention.

Attached hereto is a marked-up version of the amended claims 1,17, 22-25 and 27-31 with the deletions in brackets and additions underlined. This attachment is labeled **"Version with markings to show changes made"**. The marked up set of claims is followed by a clean set of pending claims after amendment and introduced by the heading "What is claimed is".

Since each of the claims now in this application defines patentably over each of the cited references and every combination of the cited references and since the claims are proper and definite, it is respectfully requested that they be allowed and this application be passed to issue.

Respectfully submitted,



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Version with markings to show changes made

In the claims:

1. (twice amended) A method of monitoring a patient, comprising the steps of:

placing a pressure pad that is encased in a cover on a resting place for the patient;

energizing the pressure pad, whereby a signal is provided responsive to pressure above [more than] a predetermined pressure being placed on the pressure pad by the patient;

applying pressure above [more than] said predetermined pressure to the pressure pad;

removing said pressure above said predetermined pressure;

arming the pressure pad when said pressure above said [more than a] predetermined pressure is on the pressure pad whereby the pressure pad serves as a sensor;

activating an alarm when the pressure above said [more than a] predetermined pressure has been on the pressure pad for a predetermined time and is removed from the armed pressure pad [after said predetermined time; and];

preventing at least one of said step of arming the pressure pad and said step of activating an alarm when at least one of said step of applying pressure above said predetermined pressure and said step of removing said pressure above said predetermined pressure are separated in time by more than a preset period of time; and

disposing of the pressure pad when the patient no longer has use of the pressure pad without permitting use by another patient.

17. (twice amended) A pressure pad comprising:

a gel cushion;

an alarm system having a pressure switch and an alarm;

said pressure switch being in communication with said gel cushion, whereby pressure on the gel cushion results in pressure on the pressure switch;

said alarm being connected to said pressure switch to be controlled thereby;

the alarm system being armed upon pressure being placed on the pressure pad and activated upon a release of the pressure [if said pressure is removed longer than a predetermined time after the alarm is activated.] ; and

means for preventing at least one of the arming the alarm system and the activating of said alarm when the placing pressure more than a predetermined pressure and the release of said pressure are separated in time by more than a preset period of time.

22. (amended) A method according to claim 2 wherein the step of placing a second sensor in juxtaposition with the first sensor includes the substep of placing a photoelectric sensor in a position to be activated when [with] the patient attempts to leave a location.

23. (amended) A method [according to claim 2 in] of monitoring a patient, comprising the steps of:

placing a pressure pad that is encased in a cover on a resting place for the patient;

energizing the pressure pad, whereby a signal is provided responsive to pressure above a predetermined pressure being placed on the pressure pad by the patient;

applying pressure above said predetermined pressure to the pressure pad;

arming the pressure pad when said pressure above said predetermined pressure is on the pressure pad whereby the pressure pad serves as a sensor;

activating an alarm when the pressure above said predetermined pressure has been on the pressure pad for a predetermined time and is removed from the armed pressure pad after said predetermined time; and

disposing of the pressure pad when the patient no longer has use of the pressure pad without permitting use by another patient;

wherein the pressure pad is a first sensor and a second sensor is placed in juxtaposition with the patient so that when the patient assumes a dangerous position as indicated by the second sensor an alarm signal is given, a monitoring station is activated when the alarm signal is provided, and a voice message is announced near the patient wherein the step of placing said [a] second sensor in juxtaposition with the first sensor includes the substep of detecting the direction of motion of the patient.

30 24. (amended) A method [according to claim 3 wherein] of monitoring a patient, comprising the steps of:

placing a pressure pad that is encased in a cover on a resting place for the patient;

energizing the pressure pad, whereby a signal is provided responsive to pressure

above a predetermined pressure being placed on the pressure pad by the patient;

applying pressure above said predetermined pressure to the pressure pad;

arming the pressure pad when said pressure above said predetermined pressure is on the pressure pad whereby the pressure pad serves as a sensor;

activating an alarm when the pressure above said predetermined pressure has been on the pressure pad for a predetermined time and is removed from the armed pressure pad after said predetermined time wherein an alarm is provided to a caretaker; and

disposing of the pressure pad when the patient no longer has use of the pressure pad without permitting use by another patient;

the step of activating the alarm when the pressure above the predetermined pressure is removed from the armed pressure pad after said predetermined time comprising [comprises] the substeps of generating a signal upon arming of said pressure pad, transmitting said signal through a first path to a microprocessor wherein a flag is set in said microprocessor; transmitting said signal in a second path, delaying said signal in said second path in a delay line external to said microprocessor; applying said delayed signal from said second path to said microprocessor wherein said flag is removed; transmitting said [an] alarm if said pressure above the predetermined pressure is removed from said pressure pad while said flag is present.

25. (amended) A method [according to claim 3 wherein] of monitoring a patient, comprising the steps of:

placing a pressure pad that is encased in a cover on a resting place for the patient;

energizing the pressure pad, whereby a signal is provided responsive to pressure above a predetermined pressure being placed on the pressure pad by the patient;

applying pressure above said predetermined pressure to the pressure pad;

arming the pressure pad when said pressure above said predetermined pressure is on the pressure pad whereby the pressure pad serves as a sensor;

activating an alarm when the pressure above said predetermined pressure has been on the pressure pad for a predetermined time and is removed from the armed pressure pad after said predetermined time wherein an alarm is provided to a caretaker; and

disposing of the pressure pad when the patient no longer has use of the pressure pad without permitting use by another patient;

the step of activating the alarm when the pressure above the predetermined pressure is removed from the armed pressure pad after said predetermined time comprising [comprises] the substeps of causing a program in a microprocessor to set a flag upon arming of said pressure pad, causing said program to determine when said [a] predetermined time has elapsed from the setting of said flag and transmitting said [an] alarm if said pressure above [more than] said predetermined pressure is removed after said predetermined time.

27. (amended) An apparatus in accordance with claim 11 further including a second sensor wherein the second sensor is a photoelectric sensor located in a position to be activated when [with] the patient attempts to leave a location.

28. (amended) Apparatus for monitoring a patient, comprising: [An apparatus in accordance with claim 11 further including]

a pressure pad for providing a signal indicating a pressure condition;

a control housing connected to and located adjacent to the pressure pad and responsive to the signal;

a casing at least partly encasing the control housing and the pressure pad; and

a second sensor wherein [the] means in the control housing responsive to said signal includes means responsive to a first sensor and the second sensor for detecting the direction of motion of the patient.

29. (amended) Apparatus for monitoring a patient, comprising: [An apparatus in accordance with claim 11 further including]

a pressure pad for providing a signal indicating a pressure condition;

a control housing connected to and located adjacent to the pressure pad and responsive to the signal;

a casing at least partly encasing the control housing and the pressure pad;

an alarm means at least partly within the casing [, wherein an alarm is activated]; and

control means within the control housing for activating an alarm when a pressure above a predetermined pressure is removed from an armed pressure pad [after said predetermined time comprises] ;

said control means comprising means for generating a signal upon arming of said

pressure pad, a microprocessor, means for transmitting said signal through a first path to said microprocessor wherein a flag is set in said microprocessor; means for transmitting said signal in a second path, means for delaying said signal in said second path in a delay line external to said microprocessor; and means for applying said delayed signal from said second path to said microprocessor wherein said flag is removed; transmitting an alarm if said pressure above the predetermined pressure is removed from said pressure pad while said flag is present.

30. (amended) Apparatus for monitoring a patient, comprising:

a pressure pad for providing a signal indicating a pressure condition;

a control housing connected to and located adjacent to the pressure pad and responsive to the signal;

a casing at least partly encasing the control housing and the pressure pad; and

a second sensor wherein means in the control housing responsive to said signal includes means responsive to a first sensor and the second sensor for detecting the direction of motion of the patient.

[An apparatus according to claim 11 further including an alarm means at least partly within said casing, means for activating the alarm when a pressure more than a predetermined pressure is removed from an armed pressure pad after said predetermined time; means for causing a program in a microprocessor to set a flag upon arming of said pressure pad, means for causing said program to determine when a predetermined time has elapsed from the setting of said flag and means for transmitting an alarm if said

pressure more than said predetermined pressure is removed after said predetermined time.]

31. (amended) A pressure pad comprising: [according to claim 17 further including]

a gel cushion;

an alarm system having a pressure switch and an alarm;

said pressure switch being in communication with said gel cushion, whereby pressure on the gel cushion results in pressure on the pressure switch;

said alarm being connected to said pressure switch to be controlled thereby;

the alarm system being armed upon pressure being placed on the pressure pad and activated upon a release of the pressure if said pressure is removed longer than a predetermined time after the alarm is activated; and

at least one tubular member communicating with [the] gel within the gel cushion and with said pressure switch wherein force on the gel cushion results in force transmitted through the tubular member to the pressure switch.